

APPLICATION FOR LETTERS PATENT

FOR

COATING BRUSH CLEANING AND
STORING APPARATUS AND METHOD

INVENTOR: YEHUDA SINAY
 IRA FARNOUSH

Prepared by:

Robert J. Schaap, Esq.
21241 Ventura Boulevard
Suite 188
Woodland Hills, CA 91364
(818) 346-6555

SPECIFICATION

BE IT KNOWN THAT WE, YEHUDA SINAY, a citizen of Israel and
5 permanent resident of the United States and resident of the City of
Van Nuys, State of California, and IRA FARNOUSH, a citizen of the
United States and resident of the City of Woodland Hills, State of
California, have invented a certain new and useful COATING BRUSH
CLEANING AND STORING APPARATUS AND METHOD, of which the following
10 is a specification containing the best mode of the invention known
to us at the time of filing an application for letters patent
therefor.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates in general to certain new and useful improvements in apparatus and method for storage and cleaning of brushes, and more particularly, to an apparatus and method for the cleaning and storage of paint brushes and similar coating brushes by introducing same into a solvent, and where the solvent can be reused on subsequent occasions.

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2. Brief Description of Related Art

Both home users who engage in any painting activity and painting professionals, have need to periodically clean paint brushes after use thereof. Typically, a paint tray is used for the 15 cleaning of the brush and the painter or other individual introduces a paint thinner or like solvent into the tray, so that the brush can be rubbed against a rippled surface on the tray. This introduction into a solvent along with the rubbing against a ribbed or rippled surface, aids in removing entrained paint 20 contained within the brush.

The cleaning of paint brushes is only exemplary of the problems of cleaning the brushes used for applying liquid coating materials. As an example, paint brushes and other brushes are

frequently used for applying coatings and like materials. As a result, the present invention broadly encompasses the cleaning and storage of any type of brush used in the application of paint or other coating materials.

5 Notwithstanding the foregoing, after the typical painter or home user has finished cleaning the brushes, there is the attendant problem of disposing of the solvent. Most paint solvents and other coating solvents are typically environmentally unfriendly. Even if the solvent per se was not an environmentally unfriendly substance, 10 the fact that paint or other materials is incorporated in the solvent could make the same itself to be environmentally unfriendly. Therefore, the painter and other user constantly encounters the problem of how to dispose of a paint containing solvent or other coating containing solvent. Typically, and to 15 hide any misdeed and also dispose of the offending solvent, many parties frequently discard these paint or other coating containing solvents into a drain, notwithstanding the undesirable environmental consequences.

In addition to the foregoing, many painters and other parties 20 will leave the brush disposed within a solvent bath in order to prevent any entrained paint particles from causing a hardening of the bristles on the brush. In this case, the solvent, particularly a paint thinner type solvent, typically presents a fire hazard. In

many cases, the paint brushes, particularly those of painting professionals, can be quite expensive and therefore the painters are desirous of maintaining relatively clean paint brushes to prevent the hardening.

5 The bathing of a paint brush or similar brush within a solvent contained within a paint tray or like container, also presents undesirable environmental consequences as a result of the evaporation of the solvent. Many paint solvents, for example, are suspected to be known carcinogens. Notwithstanding, the 10 evaporation of these solvents into an atmospheric condition presents other well known environmentally detrimental conditions.

15 There has therefore been a need for some mechanism which allows for the efficient cleaning of paint brushes and brushes of similar coating materials and also a need for retaining paint brushes after cleaning thereof.

OBJECTS OF THE INVENTION

It is, therefore, one of the primary objects of the present invention to provide a paint or other coating brush container, which allows for the rapid and efficient cleaning of paint brushes and similar coating brushes within the containers, and where the solvents used in the cleaning of the brushes can be retained within the container.

It is another object of the present invention to provide a brush cleaning and storage apparatus of the type stated, in which a container for receiving the brush allows for the efficient and rapid cleaning of the brush on a member contained within the container itself.

It is a further object of the present invention to provide a brush cleaning and storage apparatus of the type stated in which the paint brush and similar coating brush can be suspended within the housing and within the solvent therein for retention of the brushes.

It is an additional object of the present invention to provide an apparatus of the type stated which is highly efficient in operation and which can be constructed at a relatively low unit cost.

It is another salient object of the present invention to provide a method for both cleaning and storing of paint brushes and similar coating brushes which allows for the cleaning of the brush in a container where the solvent and the container used for the 5 cleaning of the brush can be retained for subsequent use and where the container itself also provides for the storage of the cleaned brushes.

With the above and other objects in view, our invention resides in the novel features of form, construction, arrangement 10 and combination of parts and components presently described and pointed out in the claims.

BRIEF SUMMARY OF THE INVENTION

This invention relates in general to certain new and useful improvements in brush storage and cleaning apparatus and an associated method therefor, and which is highly functional in that it allows for the rapid cleaning of paint brushes and similar coating brushes used with a solvent in a generally enclosed container, and where the solvent can be retained for subsequent use. In addition, the brush cleaning and storage apparatus and the associated method also allows for retention of the paint or coating brushes after cleaning thereof.

As indicated previously, the term "brush" typically is used in connection with painting brushes. However, the same is used in a broad sense to encompass brushes used for the application of any coating type material including protective coatings, adhesive coatings, etc. Therefore, the term "brush" is used in a broad sense herein.

The paint brush storage and cleaning apparatus of the invention generally comprises an outer housing which may be in the form of a box-like housing. However, the exact shape and size is not critical in accordance with the invention. The housing itself must be sealed so as to hold liquids such as solvents and water therein and precludes them from leaking. In addition, the housing

must have an enclosing wall which forms an interior base along with an openable top. Moreover, the top must be capable of being closed with respect to the base in such a manner that it precludes substantial evaporation of the solvent contained within that 5 housing.

Located in the lower portion of the housing is a plate which contains a rippled upper surface. That upper surface could be any type of a regular surface which allows for the brush to be leaned thereagainst. In this way, a painter can dip the paint brush, for 10 example, in the solvent contained in the lower portion of the housing, and then rub the same on this plate, so as to remove paint or other coating material which may be entrained within the bristles of the brush.

The housing itself is also provided with means, as for 15 example, hooks, which allow for the retention of the paint brushes after use. The hooks are arranged so that the paint brushes suspended thereon will allow the bristles to extend into a solvent bath contained at the lower portion of the housing. In this way, the paint brushes will not harden and will be available for use on 20 the next occasion.

In an alternative embodiment, it is possible to use only a solvent rich atmosphere in the container. Thus, when the container is in a closed condition, the solvent in the container will at

least partially evaporate, causing this solvent rich atmospheric condition in the container. This will, in turn, keep the bristles of the brush in a fairly moist condition and preclude any hardening thereof.

5 This invention possesses many other advantages and has other purposes which may be made more clearly apparent from a consideration of the forms in which it may be embodied. These forms are shown in the drawings forming a part of and accompanying the present specification. They will now be described in detail
10 for purposes of illustrating the general principles of the invention. However, it is to be understood that the following detailed description and the accompanying drawings are not to be taken in a limiting sense.

BRIEF DESCRIPTION OF THE DRAWINGS

Having thus described the invention in general terms, reference will now be made to the accompanying drawings in which:

5 Figure 1 is a perspective view of a container forming part of the brush cleaning and storage apparatus of the invention;

Figure 2 is a front elevational view of the container of Figure 1, partially broken away in order to show portions of the interior thereof;

10 Figure 3 is a vertical sectional view, taken substantially along line 3-3 of Figure 2, and showing an interior of the container of Figure 1;

Figure 4 is a horizontal sectional view, taken along line 4-4 of Figure 1; and

15 Figure 5 is a vertical side elevational view of the container of the invention, showing hook members for retaining the coating brushes for storage.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

Referring now in more detail and by reference characters to the drawings which illustrate a preferred embodiment of the present invention, A designates a brush cleaning and storage apparatus of the type used for both the storage and the cleaning of paint brushes, and like other brushes, used for coating materials, in accordance with the invention. Although the apparatus is effective in both the cleaning and the storage of such brushes, it should be recognized that it is effective only for the storage of brushes or otherwise, only for the cleaning of brushes, or both.

The coating brush cleaning and storage apparatus of the invention generally comprises an outer housing 10, having a base container 12 forming an interior chamber 14. Moreover, the housing is provided with an openable and closeable lid 16, having one or more handle means 18 for carrying the entire assembly when the lid 16 is locked to the base container 12. Moreover, the front of the housing is provided with a locking means, such as a latch 20, for releasably for latching the lid 16 to base container 12. One or more hinges 22, preferably on the rear surface of the housing, allows for hinged movement of the lid 16 with respect to the base container 12.

It should be recognized that any means for holding the lid 16, with respect to the base container 12, could be provided. For this purpose, for example, the lid could be merely releasably located on the upper surface by a friction fit or the like. Any means for 5 closing the upper open end of the container 12 can be used.

Inasmuch as it is frequently desirable to obtain a solvent rich atmosphere in the interior chamber 14, a seal 24 (Figure 3) can be provided on the undersurface on the lower edge of the lid 16, and/or on the upper edge of the base container 12, or both. 10 This sealing means does not have to be any elaborate type of sealing means, and for this purpose, a sealing strip material can be used for this purpose.

The base container 12 is provided with a bottom wall 26 and is adhered to, or otherwise mounted within on bottom wall 26, or for 15 that matter in, other portions of the interior chamber 14, is a plate 28 provided for the cleaning of the brushes and is typically referred to as a cleaning plate. In the embodiment as shown, the plate is mounted on a plurality of posts 29, which are otherwise mounted or rigidly secured to the bottom wall 26 of the base 20 container 12. By further reference to both Figures 3 and 4 of the drawings, it can be observed that the plate 28 has a roughened grid or surface pattern 30, frequently referred to as an irregular surface, for enabling the rubbing of the bristles of a brush.

thereagainst. In this way, if a brush is dipped into a solvent 32, located in the interior chamber 14, the brush can then be rubbed against the irregular surface pattern 30 on the plate 28, while holding the handle of the brush. In this way, the cleaning of the 5 brush is thereby facilitated.

By reference to Figures 2 and 3, it can be observed that a solvent, which may be in the form of a paint thinner or water, or the like, forms the back of solvent 32 at the base of the container. However, in this case, it can be observed that the 10 solvent is located to a level above the plate 30. It should also be recognized that the solvent could be introduced into the container 12 to a point above the irregular surface pattern 30 of the plate 28, to any desired height. By introduction of the brush into the solvent and the rubbing against the irregular surface 15 pattern 30, cleaning is thereby facilitated.

The various paint brushes are typically comprised of a handle having a frame at one end for holding the bristles. The opposite end of the handle is normally provided with an opening for suspending the brush on a hook or like member. For this purpose, 20 the interior wall of the container is provided with a plurality of snap holders 38, as shown in Figures 2 and 3, or otherwise hooks 40, as shown in Figure 5, for holding the paint or other coating brushes. Thus, and by reference to Figures 1 and 4, it can be

observed that one or more brushes can be held in a suspended condition in the solvent, for retention until further use. For that matter, the hooks or snaps could be arranged so as to suspend the bristles of the brush within the solvent.

5 In place of hooks or snaps, it should be recognized that any mechanism for holding the paint brushes could be employed. Thus, for example, a plate having elongate slots and recesses can be used to hold the various coating brushes. One of the important aspects of the invention is the fact that the brush is suspended in a 10 solvent rich atmosphere, which precludes hardening of the brush. Moreover, when the lid of the container is closed, there is little or no evaporation of the solvent from the container and which thereby adds to the utility of the device.

Thus, there has been illustrated and described a unique and 15 novel Coating Brush Cleaning and Storing Apparatus and Method, and which thereby fulfills all of the objects and advantages which have been sought. It should be understood that many changes, modifications, variations and other uses and applications which will become apparent to those skilled in the art after considering 20 the specification and the accompanying drawings. Therefore, any and all such changes, modifications, variations and other uses and applications which do not depart from the spirit and scope of the invention are deemed to be covered by the invention.

